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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,920	04/19/2004	Shunpei Yamazaki	12732-228001 / US7116	1020

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EXAMINER	
MOORE, KARLA A	
ART UNIT	**PAPER NUMBER**
1763	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/826,920	YAMAZAKI ET AL.	
	Examiner	Art Unit	
	Karla Moore	1763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-9,11-15,17-21 and 23-28* is/are pending in the application.

4a) Of the above claim(s) *25-28* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-9,11-15,17-21,23 and 24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 August 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 3, 6, 7, 9, 12-13, 15, 18-19, 21 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Publication No. 2001/0006827 A1 to Yamazaki et al. in view of U.S. Patent No. 6,641,674 to Peng and Japanese Patent 09-143697 A to Hirata et al.

4. Yamazaki et al. disclose an apparatus for forming a film substantially as claimed and comprising: a load chamber (Figure 5, 504); a conveyance chamber (501) connected to the load chamber; and a film formation chamber (509 or 506) connected to the conveyance chamber, wherein the film formation chamber comprises a first evaporation source (Figures 2A and 2B, 212) and means for scanning an evaporation source (see Figures 2A and 2B) across the width of a substrate. The apparatus further comprises aligning means that aligns a mask (see paragraphs 33-36).

5. However, Yamazaki et al. fails to teach first and second evaporation sources with associated moving means for each of the evaporation sources.

6. Peng teaches providing a plurality of evaporation sources in a single chamber based on requirements of a desired processing method, each of the sources is provided with means that moves the sources for the purpose of controlling the distribution of evaporated particles and also for the purpose of controlling the deposition rate (column 3, roes 6-29).

7. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a plurality of evaporation sources in a single processing chamber in Yamazaki et al. in order to perform a desired processing method and in order to control the distribution of evaporated particles, as well as to control the deposition rate as taught by Peng.

8. Yamazaki et al. and Peng disclose the invention substantially as claimed and as described above.

9. However, Yamazaki et al. and Peng fail to disclose each of the first, second and third evaporation sources are movable in an X-direction, a Y direction and a Z-direction.

10. Hirata et al. teach providing means for moving evaporation sources in a vertical direction and across the length of a substrate for the purpose of extending the controllable range of a vapor-deposited film and for the purpose of shortening the response time from the point at which an adjusting action is taken to the point at which a change in vapor-deposited film do to the adjusting action is actually effected (Figures 1-5 and abstract).

11. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided means for moving evaporation sources in a vertical direction and across the length of a substrate in Yamazaki et al. and Peng in order to extend the controllable range of a vapor-deposited film and in order to shorten the response time from the point at which an adjusting action is taken to the point at which a change in vapor-deposited film do to the adjusting action is actually effected as taught by Hirata et al.

12. With respect to claims 3, 9, 15 and 21, the film formation chamber is connected to an evacuation/exhaust treatment chamber (see paragraph 43) and has means for introducing at least one of a material gas and a cleaning gas (see paragraph 20).

13. With respect to claims 6, 12, 18 and 24, the apparatus further comprises a sealing chamber (Figure 5, 511) connected to the conveyance chamber, wherein the sealing chamber is connected to evacuating/exhausting means and has a mechanism for applying a seal material (paragraphs 53-56).

14. With respect to the shape of the openings in the sources, as recited in claims 13 and 19, the courts have held that selections of shape are a matter of choice which a person of ordinary skill in the art will find obvious absent persuasive evidence that the particular configuration of the claimed shape was significant. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

15. Claims 2, 5, 8, 11, 14, 17, 20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al., Peng and Hirata et al. as applied to claims 1, 3, 6, 7, 9, 12-13, 15, 18-19, 21 and 24 above, and further in view of U.S. Patent No. 6,179,923 to Yamamoto et al.

16. Yamazaki et al., Peng and Hirata et al. disclose the invention substantially as claimed and as described above.

17. However, Yamazaki et al., Peng and Hirata et al. fail to teach an installation chamber connected to the film formation chamber and connected to evacuating/exhausting means and with a mechanism for setting an evaporation material in the evaporation sources.

18. Yamamoto et al. teach providing an installation chamber connected to the film formation chamber and connected to evacuating/exhausting means and with a mechanism for setting an evaporation material in the evaporation sources for the purpose of reducing the amount of time required for cleaning parts and to increase the rate of operation of a depositing apparatus (paragraph 5, row 53 through column 6, rows 42).

19. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided an installation chamber connected to the film formation chamber and connected to evacuating/exhausting means and with a mechanism for setting an evaporation material in

the evaporation sources in Yamazaki et al., Peng and Hirata et al.in order to reduce the amount of time required for cleaning parts and to increase the rate of operation of the depositing apparatus as taught by Yamamoto et al.

20. With respect to claims 5 and 11, Yamamoto et al. further teach providing a shutter for the purpose of shielding a workpiece from deposition (see Figures 2 and 3).

Allowable Subject Matter

21. The indicated allowability of claims 4, 10, 16 and 22 is withdrawn in view of the newly discovered reference(s) to Hirata et al. Rejections based on the newly cited reference(s) are above.

Response to Remarks

22. Applicant's remarks with respect to claims 1-3, 5-9,11-15, 17-21 and 23-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 9:00 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571.272.1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Karla Moore
Primary Examiner
Art Unit 1763
15 April 2007